

Project Implementation and Management Support Consultants

Terms of Reference

1. Project Background

- 1.1. Multan Electric Power Company (MEPCO)(hereinafter referred to as “the Client”),is a state-owned electricity distribution company (DISCO) under Ministry of Energy (MOE) Power Division (PD), Government of Pakistan (GoP). MEPCO has received financing from the World Bank towards the cost of “Electricity Distribution Efficiency Improvement Project (EDEIP)” and intends to hire the services of Project Implementation and Management Support Consultants (PMISCs) (hereinafter referred as the Consultants) for project design, design review, bidding process, implementation, supervision and management support in respect of its subprojects and activities under the Components 1, 2 and 3 of EDEIP.
- 1.2. The project will help MEPCO to modernize and improve their service delivery. This will be achieved through strengthening of the grid to improve quality of electricity supply to the consumers while reducing technical losses under Component 1 of EDEIP and modernizing operations and management of the MEPCO through effective use of technology and information systems to improve commercial performance and service delivery under Component 2 of EDEIP. Component 3 of EDEIP will help to build capacity of the MEPCO so as to better perform various functions and to support successful project implementation.
- 1.3. MEPCO is one of the implementing entities responsible for its respective activities and subprojects under EDEIP. It was incorporated on May 14,1998. MEPCO is the largest power distribution company in the country operating exclusively in **13 administrative districts of southern Punjab** i.e. Multan, Muzaffargarh, Layyah, D.G.Khan, Rajanpur, Lodhran, Bahawalpur, R.Y.Khan, Khanewal, Sahiwal, Pakpattan, Vehari and Bahawalnagar. To meet and manage the demand, regular upgradation / development in the system is required as well as improvement in efficiency and quality of service is essential to ensure better customer service and improve financial viability. The proposed project will also support the institutional development resulting in improved operational efficiency of MEPCO and carry out its obligations as required by the regulator. It will help in (i) Physical strengthening of Transmission & Distribution networks; (ii) Deployment of modern equipment, technology and information systems; and (iii) Provide capacity building and technical assistance, studies, consultancies and overall management support.
- 1.4. Activities to be carried out by MEPCO under component 1, 2 and 3 are:
Component 1:
 - a) Design, Supply, construction, installation and Testing & commissioning of

06 new 132KV Grid-substations along with Transmission lines.

b) Rehabilitation of 70nos 11KV (HT) feeders.

Component 2:

Design, Supply, installation and Testing & commissioning of Transformer Monitoring System (TMS) on 9000Nos distribution transformers of 100 / 200KVA ratings.

Component 3:

Capacity building and Technical assistance which includes the following:-

- a) Improving operation and maintenance
- b) Trainings and capacity building and studies
- c) Project implementation support

2. Objective(s) of the Assignment

2.1. The main purpose of the Project Implementation and Management Support Consultants (PIMSCs, the Consultants) is to ensure that the project is executed satisfactorily in compliance with high standards of workmanship and quality including implementation of Environmental and Social Commitment Plan (ESCP), Environmental and Social Management Framework (ESMF), Occupational Health and Safety Management Plans (OHSMP) and other environmental and social (E&S) instruments including Stakeholder Engagement Plan (SEP), Resettlement Framework (RF) and Labor Management Procedures (LMP) that have been prepared for EDEIP. The Consultant will carry out obligations with due diligence, efficiency and economy in accordance with generally accepted professionalism/techniques and shall observe sound management practices by employing high skilled human resource and appropriate advanced technology. The Consultant will always act as faithful adviser to the Client and will at all times support and safeguard Client's legitimate interests, in respect of any matter relating to the designated services under EDEIP. The scope shall include, but not limited to, design review, preparation/vetting of base, final design and technical drawings, review of technical specifications where required, preparation of tender documents, environment and social instruments; assist throughout the bidding process and contract award including technical and financial vetting of bids; post-award meeting with contractor and other preparatory activities, contract management, site engineering review, implementation supervision including monitoring of ESMF implementation, testing, obtaining clearances, commissioning and handing over, as per contract provisions, statutory norms, rules & regulations and good industry practices.

3. Scope of Services:

3.1. The Consultant shall, at all times represent the best interest of the Client vis-à-vis the implementation contracts being supervised. The scope of services shall include review and approval of design and engineering drawings submitted by contractors,

supervision of physical surveys, material inspection at site, supervision and monitoring of works including certification of contractors' bills, liaison with local authorities, ensure implementation of works as per contract conditions & good industry standards with monitoring & compliance of Environmental and Social Management Plan (ESMP)/ Environmental and Social Impact Assessment (ESIA) and support implementation of Resettlement Plans (RPs), Stakeholder Engagement Plan (SEP), Labor Management Procedures (LMP) and any other E&S related instruments which may be developed during the course of project implementation. Based on this implementation experience and their own experience and knowledge, the Consultant shall endeavor to provide to the Client, suggestions/solutions on technical & project implementation aspects, either Suo-moto or as and when requested by the Client. The Consultants shall also organize liaison/ technical meetings and prepare physical, financial & safeguard implementation progress reports as required by the Client and the World Bank, highlighting bottlenecks/issues and practical solutions to ensure effective implementation. A comprehensive review of MEPCO's business processes will be conducted to improve management, efficacy and quality.

3.2. The services to be provided by the Consultant shall include, but not be limited to the following tasks:

A. PREPARE/UPDATE FEASIBILITY STUDIES, TENDER DESIGN AND TENDER DOCUMENTS, ENVIRONMENTAL AND SOCIAL INSTRUMENTS AND SUPPORT THE BIDDING PROCESS

- a. The consultant will prepare, review and update feasibility and design studies of each subproject; undertake necessary analysis, power system and geotechnical studies (soil investigation, earth resistivity reports etc.) of each new substation/line; and recommend/provide optimal design options (single line diagrams and layouts) and specification of the equipment required. The Client will provide the specifications (if available) of equipment which the consultant will review and update if necessary or else the consultant shall prepare itself, to ensure these specification are in line with international best practices and include state-of-art digital technologies (hardware and software) to optimize operation, maintenance, control and protection of assets, with focus on their core equipment. In this context, the consultant shall review and update/carryout necessary system studies, load flow studies including short-circuit study, etc. accordingly, to confirm technical specifications of equipment in line with International Electro-technical Commission (IEC) standards.
- b. Preparation and updating Project Implementation Plan for contract management with proper procedures for monitoring and evaluation. While preparing these plans the Consultant will ensure that the recommendations of relevant environmental and social documents have been taken into account.
- c. Review/update the procurement plans with an optimal procurement strategy and

packaging for implementation;

- d. Prepare bidding documents in accordance with the relevant World Bank Regulations and standard documents in accordance with the approved procurement plans.
- e. The Consultant will assist the Client in convening the bidding process of Works and Goods or Supply and Installation contracts in accordance with the process stipulated in World Bank's procurement regulations and applicable bidding documents. In particular, the Consultant will be responsible in consultation with and on behalf of the Client with respect to:
 - Responding to any queries raised by bidders in connection with bid document;
 - Organizing pre-bid meetings and preparing timely responses of queries raised therein or later on
 - Preparing all necessary addenda and Minutes of Meetings after each meeting with the client, contractors or other stakeholders, including the World Bank
 - Assist the Client in evaluation of bids and preparing the draft and final Bid Evaluation Report (BER) and other related documents. Responding to stakeholder queries on BER and implement same in final BER;
 - Participating in the technical negotiations if any, preparation and finalizations of the contracts.
 - Assist the Client in contract administration and supervision during the currency of the contract(s) for Works, Goods and others, responding to Contractor's notices for claims and evaluation of claims including assistance to Client in proceedings for any dispute adjudication with Contractors or Suppliers.
- f. The Consultants will undertake environmental and social assessments and prepare ESIA(s) in case of new subprojects and Resettlement Plan(s) for subprojects involving land acquisition in accordance with the World Bank ESF and ESMF and RF prepared for EDEIP. The Consultant will also provide support to the Client to carryout consultations with stakeholders during preparation of these Plans guided by ESMF and RF and update SEP.

B. Project Planning & Implementation

- a. Prepare a project monitoring scheme (covering technical, physical, financial, environmental and social aspects) and finalize formats and periodicity for reporting progress.
- b. Facilitate pre-implementation meetings between the Contractor and Client to discuss and finalize contractor's site plan, work program, safety procedures, reporting procedures, communication protocol (between Client, Contractor and Consultant),

and program for quality control and testing of materials.

- c. Review and recommend for approval PERT charts using Primavera P-6 or equivalent software, Quality Assurance Plans, Safeguard Implementation Plans etc. submitted by contractors.
- d. All technical and other required submittals of the Contractors are to be timely reviewed, commented and comments incorporated in line with technical requirements of the projects/subprojects. Proper track record of submittals and consequent actions/approvals is to be maintained.
- e. Assist the Client in reviewing and approving survey/ layout proposed by the Contractor, with due consideration to factors like optimal transmission line length and route, minimum social and environmental impact and ease of maintenance. Once the survey is finalized, the Consultant shall prepare a comprehensive list; other anticipated bottlenecks and proactively supports the Contractor and the Client in obtaining the required Right of Way (RoW) clearances.
- f. Certify the requirement of material at site, based on site progress and lead time for manufacturing & delivery of the equipment and advise the Contractor to ensure that the material is offered for inspection well in time.
- g. Shall compliment the client in witnessing both Factory Acceptance Test (FAT), if required and subject to Covid-19 situation and Site Acceptance Test (SAT) to ascertain that the technical requirements are fulfilled. The scope also includes review of FAT and SAT, testing protocols according to international standards, such as in IEEE, IEC etc. with suitable inputs to ensure quality testing is conducted both at factory as well as at site prior to final live commissioning of the equipment”.
- h. Carry out site inspection of all incoming material at site as per approved drawings, technical specifications, and relevant standards. A detailed inspection report shall be submitted to the Client upon receipt/inspection of material. If any deviation is found, the material may be rejected and issue will be brought into the notice of the Client. Monitor that all material rejected at site is immediately removed from Contractor’s stores and not used in the Project. Consultant shall prepare and maintain inspection and engineering report and records and make them available to Client as and when required.
- i. Supervise & monitor the execution of works/site activity and ensure quality, adherence to time schedule and contract conditions. Consultant shall particularly monitor the proper handling, laying and temporary storage of materials at site. Consultant shall also monitor that works are carried out by skilled workforce.
- j. The Consultant shall strictly monitor work and site safety particularly about clearances of live lines/equipment, adequate protection of personnel and material shall be ensured/ monitored while working on towers and other heights and of open trenches/pits. Consultant shall also provide inputs to improve safety culture/practices

of the Client and shall monitor safety procedures at sites and will ensure implementation of safety SOPs and NEPRA's Safety Code in letter and spirit.

- k. Ensure maintenance of all site records, to be agreed with the Client and Contractor.
- l. Assess the adequacy of all resources such as materials and labor mobilized by the contractor, their methods of work in relation to the required progress, and when required, appropriately advise the contractor to take suitable steps to expedite progress. Reports pertaining to weekly site progress/meeting, material progress will be reviewed and regularly updated and monitoring the progress of commitments made by contractors in previous review meetings or during discussions. Poor or slow progress and any other violation by the Contractors has to be highlighted and brought into notice of the Client forthwith with suggestions for corrective actions and issuing additional warnings to site teams of poor performing contractors.
- m. Certify the achievement of the contractual milestones, and the satisfactory quality of the progress, in line with the progress milestones laid down in the concerned works contract.
- n. Assist the Client in reviewing and approving Contractors' bills/invoices, contract variations and other claims, if any. For this, the Consultant shall examine and make recommendations on all invoices/claims received from the contractors including those for time extension, extra work expenses or other similar matters including determination of rates of new items, as required.
- o. Assist the Client for checking of Drawings/GTP of Electrical Items/Equipment as per Technical Specifications included in contract agreement. Suggest modifications as per IS/IEC Standards if necessary and as feasible, and recommend for Amendments/Addition of technical parameters and issue of contract amendments.
- p. Determine the amount to be added to or deducted from payments to the contractor for any additional work or for work omitted or due to price variation as per contract conditions.
- q. Propose and present for approval of the Client changes in the technical documents/drawings that may be deemed necessary for the completion of works including information on any effects the changes may have on the contract amount and time of completion of the project and prepare all specifications and other details arising thereof.
- r. Proactively advise the Client on problems or potential problems which may arise in connection with the implementation of the contract and make recommendations to the Client for possible solutions.
- s. Furnish timely assistance and direction to the contractors in all matters related to interpretation of the contract documents, testing and other matters related to contract

compliance and progress of the project.

- t. Assist the Client during site works, handling of site equipment, installation, testing and commissioning activities including required approvals of testing/commissioning and other protocols.

C. Quality Monitoring & Reporting

- a. Review the quality assurance plan (QAP) and Field Quality Plan (FQP) submitted by contractors and recommend for approval of Client.
- b. Joint inspection (with or without representative of Client) of material at contractor's premises and at site and preparing/reviewing detailed inspection reports.
- c. Identification of the defects/omissions, if any, in works executed at site, and get them corrected by the contractors
- d. Prepare and submit monthly, quarterly and annual progress reports or other reports as required by contract document/WB/Client covering all aspects of the project including work progress, the contractor's performance, quality of work, delays, deficiencies, constraints, and the project's financial status, forecasts, and giving recommendations for action.
- e. Compile systematic records of the contractor's site activities, prepare and maintain inspection and engineering report and records to adequately document the progress and performance of the work.

D. Contract Management & Closure

- a. Support Client in establishing a communication protocol between Client, Contractors and Consultant to ensure efficient co-working.
- b. Facilitate issuance of all information, notices, and instructions to the contractor by the Client as provided for in the contract documents.
- c. Upon receipt of completion notice from the Contractor, inspect the works and inform contractor in writing, items needing rectification for completion.
- d. Before the issuance of the certificate of completion/substantial completion, specify and supervise any remedial works to be carried out and recommend upon completion. The inspection should be carried out jointly with representatives of the Client.
- e. Carry out final inspection at the conclusion of the supply and installation contract,
- f. Review the Certificate of Completion prepared by the contractor. The certificate shall include stating date, or dates from which the defect liability period of supply

and installation work shall commence.

- g. Monitor that all post-construction (as-built) drawings, manuals (hard and soft copies) in required number are submitted and training requirements of Client, if such are included in the contracts, completed.
- h. Facilitate decisions on all claims and accounts, all questions, disputes and differences which may arise between the Client and Contractor and which under the terms of the contracts are left for the Arbitrator's settlement and decisions.
- i. Assist and advise the Client about any matter that may be subject to adjudication, arbitration, inquiry or litigation up to delivery certificate of completion
- j. Maintain detail records of relevant events & activities, drawings & documents, minutes of meetings

E. Environmental, Social & Occupational Health and Safety (OHS) Management

Environment

- a. Support Client in ensuring compliance related to environmental safeguards adhering to the provisions of ESMF, ESIA and ESMP.
- b. Advice related to good practices on resource efficiency and pollution risk and control for the design, operation and maintenance of substations, storage yards and maintenance workshops. Develop good practice manual to facilitate adherence.
- c. Develop environment management checklist for use by Client officials and Contractors in undertaking their supervision, monitoring and implementation activities.
- d. Review and confirm that all relevant clearances and permits have been obtained prior to/ during commencement of works and all required signages /flags etc are in place at site. Particularly ensure that all open pits, excavations that are left overnight are secured from access by humans and animals.
- e. Review documentation and undertake site visits (environmental monitoring and audits) to document (including photographs) and confirm that all corrective actions for existing facilities, set out in the ESMP have been adequately implemented.

Social

- a. Assist Client for the implementation of RP, SEP, and LMP.
- b. Monitor social impacts and mitigation activities as included in the ESIA/ESMP, improve monitoring indicators and mitigation plans, if needed.
- c. Prepare semi-annual and annual social impact monitoring reports.
- d. Assist Client in establishing a grievance redressal mechanism and support in managing grievance redressal processes throughout project implementation.

- e. Prepare completion report as per the recommended practices.
- f. Provide guidance and advice to Client on any social safeguards compliance issues and provide training as needed.
- g. Review documentation and undertake site visits (social monitoring and audits) to document (including photographs) and confirm that all corrective actions for existing facilities, set out in the ESMP have been adequately implemented.

Occupational Health and Safety (OHS)

- a. Support Client in discharging their OHS responsibilities and ensuring compliance to OHS regulations.
- b. Review contractors' Occupational Health and Safety Management Plans (OHSMPs)
- c. Support Client to ensure that contractors implement OHSMP in accordance with bidding documents, agreed OHS standards, NEPRA safety code, ESMF and LMP.
- d. Provide guidance on OHS to contractors' staff and Client officials during different stages in project implementation.
- e. Conduct Life and Fire Safety risk and high-level security risk assessments as committed in the ESCP
- f. Develop OHS management checklist and key performance indicators for use by contractors and client officials in undertaking their implementation, supervision and monitoring activities.
- g. Review documentation and undertake site visits (OHS monitoring and audits) to document compliance with OHSMP.
- h. Establish matrix of consequences for ensuring enforcement of OHSMPs

F. Assessment of Business Functions, Preparation of future projects/pilot initiatives and Trainings

- a. A comprehensive review of business processes will be conducted to improve management, efficacy and quality. The review should also include exploring outsourcing and PPP opportunities. Study should propose the business processes, re-engineering plan within implementation schedule and change management strategies.
- b. The consultant will carry out a detailed assessment of current condition of assets and cost-benefit analysis to identify the most effective technologies and applications and define approaches for their implementation.
- c. Carryout a well-structured training and capacity building program for PMU & MEPCO staff.

4. Institutional Arrangements

- 4.1. Overall monitoring of progress shall be done by the Client's Project Management Unit (PMU). PMU will be supported by other relevant departments of the Client to

form a multi-tier, multi-disciplinary team to oversee the execution of the Assignment and the Project.

- 4.2. Chief Engineer (Development)/Project Director PMU will be representative of the Client and will be responsible to coordinate all interfaces with the Consultants. Chief Engineer(Development) will be the main interface for the Consultant and will provide all required information and other documents. CE Development will also assist the Consultants in resolving various administrative issues which may arise during the duration of the assignment.
- 4.3. The Consultant shall setup an office near Client's Head Office, with sufficient seating capacity, and equipped with meeting rooms, furniture, equipment, appliances and communication facilities in line with good industry practices. The offices should have good internet connectivity with sufficient bandwidth for VCs, multi-purpose printer-scanner-copier and telephone facilities. The responsibility for maintenance, upkeep, ward and watch of the offices shall lie with the Consultant.
- 4.4. The Consultant shall arrange all logistical, transport and communication facilities for its team to enable them to perform efficiently.
- 4.5. The Consultants' Project Manager will be the principal contact and is expected to be readily available during project implementation. Project Manager should be able to lead the team of the PIMSCs and assists the Client in timely completion of the Services with a quality output.
- 4.6. The Consultants shall be responsible for all aspects of performance of services as set forth in the preceding sections of this TOR. The Client will be responsible for providing the suitable relevant data and information as required by the Consultants for discharge of its obligations.
- 4.7. The Client shall provide copies of available studies, designs, related drawings and any other relevant information to the PIMSCs.
- 4.8. Client shall ensure that agreed timelines for approvals of drawings, inspection reports and payments for Consultant's claims/invoices are followed.

5. Reporting Arrangements, Timelines and Staff Skills

5.1. Reporting

- 5.1.1. The Consultants shall prepare an Inception Report at the start of assignment which shall include the status of mobilization of PIMSCs staff, establishment of site office, updated methodology and work plan, counterpart requirements etc.

- 5.1.2.** The Consultants shall prepare regular progress reports as per frequency (generally weekly, fortnightly and monthly/quarterly/annual reports) and formats finalized at commencement. Progress reports shall also highlight overall progress, areas of concern, quality of work, delays, deficiencies, constraints, in addition to financial and physical progress status. They shall include financial forecasts, anticipated bottlenecks (specially related to R.O.W and import of equipment) and recommend mitigation actions required to be taken by Contractor/Client. The reports should also include site photographs highlighting good/deficient practices and physical progress. Use of videos, modern gadgets and technologies for improved monitoring is recommended.
- 5.1.3.** While the detailed formats will be finalized after contract award, the progress reports shall cover the following:
- i. Main activities undertaken and events including E&S aspects for the period under review and Progress Report on the activities of the contractor and supervision staff.
 - ii. Monitoring and Evaluation of project progress.
 - iii. Project accounts, payments of approved bills, claims, certificates and payment and variation orders.
 - iv. Photographs showing progress of the works.
 - v. Other issues as deemed necessary to provide additional information to the Client.
 - vi. Material reconciliation status applicable on that date viz. Material as per approved BOQ, Material received at stores, Material erected & Balance Material to be done to avoid unnecessary dumping of material at site.
- 5.1.4.** An Exception report shall be prepared every fortnight to highlight every major milestone & critical issue, and the same shall be submitted to the **Chief Engineer Development of the PMU of the Client.**
- 5.1.5.** The Consultants shall prepare a Monthly Progress Report and a more detailed Quarterly Progress Report (QPR). Besides the points above, the QPR shall also include E&S Implementation Report as per ESMP & ESCP. The QPR shall be shared with the client within 15 days of the completion of each quarter, which the client will further submit to the World Bank (as per legal requirements).
- 5.1.6.** The Consultants shall submit the completion report of each contract within 15 days of commissioning of work clearly indicating punch/defect list and remaining activities, if any. A timeline and work plan has to be agreed with Contractor for attending the points highlighted in punch list and other balance activities to be executed by the Contractor for all deficiencies.
- 5.2. Reporting Requirements and Time Schedule for Deliverables (these are indicative and shall be finalized after contract award)**

Report/Document	Number of Copies	Indicative Delivery Timelines
Monthly Progress Report	3	Within 10 working days after end of each month
Quarterly Progress Report	3	Within 15 working days after end of each quarter.
Social and Environmental Documents for each sub-project as outlined in the ESMF, RF and ESCP	3	As part of the Monthly/ quarterly progress report and as and when required
Biannual Social & Environmental Monitoring Reports	3	Within 60 working days after end of each 6 months.
Reviews of Design and Drawings	-	Within 14 days for each design and drawings.
Any Other reports required for the execution of the Project	-	As and when required by the Client.
Draft Completion Report	3	Within 6 weeks after completion of each package.
Final Completion Report	3	Within 4 weeks after receiving and addressing comments by the Client on draft Completion Report.
Implementation Completion Report	3	Upon completion of the project or at Project closing.

5.3. Key Timelines

5.3.1. The tentative timeline for completion of the different works contracts is as follows:-

- i) 18 months for construction of 06 No new grids
- ii) 18 months for 70 No HT proposals.
- iii) 18 months for 9000 units of Transformer Monitoring system.
- iv) 210 days for procurements of Bucket mounted trucks & testing equipments

However, the total completion time for the Consultancy service including defect liability+ period and closure process will be 42 months from the date of signing of contract. The timeline in respect of individual packages will be elaborated & finalized through deployment schedule during contract agreement and may be extended or shortened on the basis of overall progress of work.

5.4. Staff Skills for the Key Experts:

5.4.1. The Consultants are encouraged to use the expertise available in Pakistan to the extent possible. However, international experience, experience with the World Bank and / Or International Financing Institutions (IFI) financed projects will be advantageous. The Consultants are free to propose a staffing plan and skill mix

necessary to meet the objectives and scope of services. If all the required skills are not available within the consulting firms, they are encouraged to make joint ventures with other firms. Following is an indicative list of key staff skills required for carrying out the assignment:

Key Staff / Skills

- i) Project Manager/Team Leader
- ii) Utility Reforms and Management Expert
- iii) Electrical Design Engineer 132kV system
- iv) Civil Design and Supervision Engineer
- v) Procurement and Contract Management Expert
- vi) Environmental and OHS Expert
- vii) Social Expert
- viii) Contract Supervision, QA/QC, Claims Expert 132kV system
- ix) Design, Contract Supervision, QA/QC, Claims Expert 11kV system

Total staff time input is estimated to be about 300staff months for key and non-key experts and 200 staff months for technical support staff.